RAW SEQUENCE LISTING DATE: 07/05/2001
PATENT APPLICATION: US/09/881,823 TIME: 11:17:39

Input Set : **A:\PTO.txt**
Output Set **N:\CRF3\07052001\I881823.raw**

```
   3 <110> APPLICANT  SHI, WENYUAN
   4          ANDERSON, MAXWELL
   5          MORRISON, SHERIE
   6          TRINH, RYAN
   7          WIMS, LETITIA
   8          CHEN, LI
  10 <120> TITLE OF INVENTION: Method for the Treatment and Prevention of Dental Caries
  12 <130> FILE REFERENCE: 22851-032
C--> 14 <140> CURRENT APPLICATION NUMBER: US/09/881,823
C--> 14 <141> CURRENT FILING DATE: 2001-06-15
  14 <150> PRIOR APPLICATION NUMBER: US 07/378,577
  15 <151> PRIOR FILING DATE. 1999-08-20
  17 <160> NUMBER OF SEQ ID NOS: 32
  19 <170> SOFTWARE. PatentIn version 3.0
  21 <210> SEQ ID NO  1
  22 <211> LENGTH: 420
  23 <212> TYPE: DNA
  24 <213> ORGANISM: Murine
  26 <220> FEATURE:
  27 <221> NAME/KEY: CDS
  28 <222> LOCATION  (14)..(415)
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  32                Met Glu Thr Asp Thr Leu Leu Leu Trp Val Leu Leu
  33                 1               5                  10
  35 ctc tgg gtt cca ggt tcc aca ggt gac att gtg ctg acc caa tct cca       97
  36 Leu Trp Val Pro Gly Ser Thr Gly Asp Ile Val Leu Thr Gln Ser Pro
  37         15                  20                  25
  39 gtt tct ttg gct gtg tct cta ggg cag agg gcc acc ata tcc tgc aga      145
  40 Val Ser Leu Ala Val Ser Leu Gly Gln Arg Ala Thr Ile Ser Cys Arg
  41     30                  35                  40
  43 gcc agt gaa agt gtt gat agt tat ggc aat agt ttt atg aac tgg tac      193
  44 Ala Ser Glu Ser Val Asp Ser Tyr Gly Asn Ser Phe Met Asn Trp Tyr
  45 45                  50                  55                  60
  47 cag cag aaa cca gga cag cca ccc caa ctc ctc atc tat cgt gca tcc      241
  48 Gln Gln Lys Pro Gly Gln Pro Pro Gln Leu Leu Ile Tyr Arg Ala Ser
  49                 65                  70                  75
  51 aat cta gaa tac ggg atc cct gcc agg ttc agt ggc agt ggg tct agg      289
  52 Asn Leu Glu Tyr Gly Ile Pro Ala Arg Phe Ser Gly Ser Gly Ser Arg
  53                 80                  85                  90
  55 aca gac ttc acc ctc acc att aat cct gtg gag gct gat gat gtt gca      337
  56 Thr Asp Phe Thr Leu Thr Ile Asn Pro Val Glu Ala Asp Asp Val Ala
  57         95                  100                 105
  59 acc tat tac tgt cag caa aat aat gcg gat cct ccc acg ttc gga ggg      385
  60 Thr Tyr Tyr Cys Gln Gln Asn Asn Ala Asp Pro Pro Thr Phe Gly Gly
  61     110                 115                 120
  63 ggg acc aag ttg gaa atc aaa cgt aag tcg acgct                        420
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RAW SEQUENCE LISTING   DATE 07/05/2001
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Input Set : A:\PTO.txt
Output Set: N:\CRF3\07052001\I881823.raw

64 Gly Thr Lys Leu Glu Ile Lys Arg Lys Ser
65 125   130
68 <210> SEQ ID NO: 2
69 <211> LENGTH: 134
70 <212> TYPE: PRT
71 <213> ORGANISM: Murine
73 <400> SEQUENCE: 2
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76 1   5   10   15
79 Gly Ser Thr Gly Asp Ile Val Leu Thr Gln Ser Pro Val Ser Leu Ala
80   20   25   30
83 Val Ser Leu Gly Gln Arg Ala Thr Ile Ser Cys Arg Ala Ser Glu Ser
84   35   40   45
87 Val Asp Ser Tyr Gly Asn Ser Phe Met Asn Trp Tyr Gln Gln Lys Pro
88   50   55   60
91 Gly Gln Pro Pro Gln Leu Leu Ile Tyr Arg Ala Ser Asn Leu Glu Tyr
92 65   70   75   80
95 Gly Ile Pro Ala Arg Phe Ser Gly Ser Gly Ser Arg Thr Asp Phe Thr
96   85   90   95
99 Leu Thr Ile Asn Pro Val Glu Ala Asp Asp Val Ala Thr Tyr Tyr Cys
100   100   105   110
103 Gln Gln Asn Asn Ala Asp Pro Pro Thr Phe Gly Gly Gly Thr Lys Leu
104   115   120   125
107 Glu Ile Lys Arg Lys Ser
108   130
111 <210> SEQ ID NO: 3
112 <211> LENGTH: 454
113 <212> TYPE: DNA
114 <213> ORGANISM: Murine
116 <220> FEATURE:
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118 <222> LOCATION: (14)..(430)
120 <400> SEQUENCE: 3
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123   1   5   10
125 ttc cca agc tgt gtc ctg tcc cag gtg cag ctg aag gag tca gga cct   97
126 Phe Pro Ser Cys Val Leu Ser Gln Val Gln Leu Lys Glu Ser Gly Pro
127   15   20   25
129 ggc ctg gtg gcg ccc tca cag agc ctg tcc atc aca tgc act gtc tca   145
130 Gly Leu Val Ala Pro Ser Gln Ser Leu Ser Ile Thr Cys Thr Val Ser
131   30   35   40
133 ggg ttc tca tta acc aac tat gat ata aat tgg gtt cgc cag cct cca   193
134 Gly Phe Ser Leu Thr Asn Tyr Asp Ile Asn Trp Val Arg Gln Pro Pro
135 45   50   55   60
137 gga aag ggt ctg gag tgg ctg gga ata ata tgg ggt gac ggg agc aca   241
138 Gly Lys Gly Leu Glu Trp Leu Gly Ile Ile Trp Gly Asp Gly Ser Thr
139   65   70   75
141 aat tat cat tca gct ctc ata tcc aga ctg agc atc agc aag gat aac   289

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/881,823

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Input Set : A:\PTO.txt
Output Set: N:\CRF3\07052001\I881823.raw

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142 Asn Tyr His Ser Ala Leu Ile Ser Arg Leu Ser Ile Ser Lys Asp Asn
143         80                  85                  90
145 tcc aag agc caa att ttc tta aaa ctg aac agt ctg caa act gat gac        337
146 Ser Lys Ser Gln Ile Phe Leu Lys Leu Asn Ser Leu Gln Thr Asp Asp
147         95                 100                 105
149 aca gcc acg tac tac tgt aac tac ccg tgt tta tat ttc tat ggt atg        385
150 Thr Ala Thr Tyr Tyr Cys Asn Tyr Pro Cys Leu Tyr Phe Tyr Gly Met
151     110                 115                 120
153 gac tac tgg ggt caa gga acc tca gtc acc gtc tct tca gct agc        430
154 Asp Tyr Trp Gly Gln Gly Thr Ser Val Thr Val Ser Ser Ala Ser
155 125                 130                 135
157 acaacagccc catcagtcga ccca        454
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161 <211> LENGTH: 139
162 <212> TYPE: PRT
163 <213> ORGANISM: Murine
165 <400> SEQUENCE: 4
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168 1               5                  10                  15
171 Val Leu Ser Gln Val Gln Leu Lys Glu Ser Gly Pro Gly Leu Val Ala
172         20                  25                  30
175 Pro Ser Gln Ser Leu Ser Ile Thr Cys Thr Val Ser Gly Phe Ser Leu
176         35                  40                  45
179 Thr Asn Tyr Asp Ile Asn Trp Val Arg Gln Pro Pro Gly Lys Gly Leu
180     50                  55                  60
183 Glu Trp Leu Gly Ile Ile Trp Gly Asp Gly Ser Thr Asn Tyr His Ser
184 65                  70                  75                  80
187 Ala Leu Ile Ser Arg Leu Ser Ile Ser Lys Asp Asn Ser Lys Ser Gln
188                 85                  90                  95
191 Ile Phe Leu Lys Leu Asn Ser Leu Gln Thr Asp Asp Thr Ala Thr Tyr
192             100                 105                 110
195 Tyr Cys Asn Tyr Pro Cys Leu Tyr Phe Tyr Gly Met Asp Tyr Trp Gly
196             115                 120                 125
199 Gln Gly Thr Ser Val Thr Val Ser Ser Ala Ser
200         130                 135
203 <210> SEQ ID NO: 5
204 <211> LENGTH: 411
205 <212> TYPE: DNA
206 <213> ORGANISM: Murine
208 <220> FEATURE:
209 <221> NAME/KEY: CDS
210 <222> LOCATION: (14)..(406)
212 <400> SEQUENCE: 5
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214             Met Asp Phe Gln Val Gln Ile Phe Ser Phe Leu Leu
215             1               5                  10
217 atc agt gtc aca gtc ata ttg acc aat gga gaa att ttg ctc acc ccg        97
218 Ile Ser Val Thr Val Ile Leu Thr Asn Gly Glu Ile Leu Leu Thr Pro
219         15                  20                  25
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RAW SEQUENCE LISTING   DATE: 07/05/2001
PATENT APPLICATION: US/09/881,823   TIME: 11:17:40

Input Set : A:\PTO.txt
Output Set: N:\CRF3\07052001\I881823.raw

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221 tct cca gca atc ata gct gca tct cct ggg gaa aag gtc acc atc acc    145
222 Ser Pro Ala Ile Ile Ala Ala Ser Pro Gly Glu Lys Val Thr Ile Thr
223     30                  35                  40
225 tgc agt gcc agc tca agt gtt agt tac atg aac tgg tac cag cag aaa    193
226 Cys Ser Ala Ser Ser Ser Val Ser Tyr Met Asn Trp Tyr Gln Gln Lys
227 45                  50                  55                  60
229 cca gga tct tcc ccc aaa atc tgg att tat ggt gta tcc aac ctg gct    241
230 Pro Gly Ser Ser Pro Lys Ile Trp Ile Tyr Gly Val Ser Asn Leu Ala
231                     65                  70                  75
233 tct gga gtt cct gct cgc ttc agt ggc agt ggg tct ggg aca tct ttc    289
234 Ser Gly Val Pro Ala Arg Phe Ser Gly Ser Gly Ser Gly Thr Ser Phe
235                 80                  85                  90
237 tct ttc aca atc aac agc atg gag gct gaa gat gtt gcc act tat tac    337
238 Ser Phe Thr Ile Asn Ser Met Glu Ala Glu Asp Val Ala Thr Tyr Tyr
239             95                  100                 105
241 tgt cag caa agg agt agt tac cca ttc acg ttc ggc tcg ggg acc aag    385
242 Cys Gln Gln Arg Ser Ser Tyr Pro Phe Thr Phe Gly Ser Gly Thr Lys
243         110                 115                 120
245 ctg gaa ata aaa cgt aag tcg acgct                                  411
246 Leu Glu Ile Lys Arg Lys Ser
247 125                 130
250 <210> SEQ ID NO: 6
251 <211> LENGTH: 131
252 <212> TYPE: PRT
253 <213> ORGANISM: Murine
255 <400> SEQUENCE: 6
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258 1                   5                   10                  15
261 Val Ile Leu Thr Asn Gly Glu Ile Leu Leu Thr Pro Ser Pro Ala Ile
262             20                  25                  30
265 Ile Ala Ala Ser Pro Gly Glu Lys Val Thr Ile Thr Cys Ser Ala Ser
266         35                  40                  45
269 Ser Ser Val Ser Tyr Met Asn Trp Tyr Gln Gln Lys Pro Gly Ser Ser
270     50                  55                  60
273 Pro Lys Ile Trp Ile Tyr Gly Val Ser Asn Leu Ala Ser Gly Val Pro
274 65                  70                  75                  80
277 Ala Arg Phe Ser Gly Ser Gly Ser Gly Thr Ser Phe Ser Phe Thr Ile
278                 85                  90                  95
281 Asn Ser Met Glu Ala Glu Asp Val Ala Thr Tyr Tyr Cys Gln Gln Arg
282             100                 105                 110
285 Ser Ser Tyr Pro Phe Thr Phe Gly Ser Gly Thr Lys Leu Glu Ile Lys
286         115                 120                 125
289 Arg Lys Ser
290     130
293 <210> SEQ ID NO: 7
294 <211> LENGTH  465
295 <212> TYPE: DNA
296 <213> ORGANISM: Murine
298 <220> FEATURE:
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RAW SEQUENCE LISTING   DATE: 07/05/2001
PATENT APPLICATION: US/09/881,823   TIME: 11:17:40

Input Set : A:\PTO.txt
Output Set: N:\CRF3\07052001\I881823.raw

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304                 Met Asp Arg Leu Thr Ser Ser Phe Leu Leu Leu Ile Val
305                  1               5                  10
307  cct gca tat gtc ctc tcc cag gtt act ctg aaa gag tct ggc cct ggg      99
308  Pro Ala Tyr Val Leu Ser Gln Val Thr Leu Lys Glu Ser Gly Pro Gly
309   15                  20                  25
311  ata ttg cag ccc tcc cag acc ctc agt ctg act tgt tct ttc tct ggg     147
312  Ile Leu Gln Pro Ser Gln Thr Leu Ser Leu Thr Cys Ser Phe Ser Gly
313   30                  35                  40                  45
315  ttt tca ctg aga act tat ggt ata gga gta ggc tgg att cgt cag cct     195
316  Phe Ser Leu Arg Thr Tyr Gly Ile Gly Val Gly Trp Ile Arg Gln Pro
317                   50                  55                  60
319  tca ggg agg ggt ctg gag tgg ctg gca cac att tgg tgg aat gat aat     243
320  Ser Gly Arg Gly Leu Glu Trp Leu Ala His Ile Trp Trp Asn Asp Asn
321                   65                  70                  75
323  aag tac tat aac aca gtc ctg aag agc cgg ctc aca atc tcc aag gat     291
324  Lys Tyr Tyr Asn Thr Val Leu Lys Ser Arg Leu Thr Ile Ser Lys Asp
325                   80                  85                  90
327  acc tcc aac aac cag gta ttc ctc aag atc gcc agt gtg gac act gca     339
328  Thr Ser Asn Asn Gln Val Phe Leu Lys Ile Ala Ser Val Asp Thr Ala
329   95                  100                 105
331  gat act gcc aca tac tac tgt gcg cga ata gag ggg ggc tcg ggc tac     387
332  Asp Thr Ala Thr Tyr Tyr Cys Ala Arg Ile Glu Gly Gly Ser Gly Tyr
333  110                 115                 120                 125
335  gat gtt atg gac tac tgg ggt caa gga atc tca gtc acc gtc tct tca     435
336  Asp Val Met Asp Tyr Trp Gly Gln Gly Ile Ser Val Thr Val Ser Ser
337                  130                 135                 140
339  gct agc acaacacccc catctgtcga ccca                                  465
340  Ala Ser
344  <210> SEQ ID NO: 8
345  <211> LENGTH: 143
346  <212> TYPE: PRT
347  <213> ORGANISM: Murine
349  <400> SEQUENCE: 8
351  Met Asp Arg Leu Thr Ser Ser Phe Leu Leu Leu Ile Val Pro Ala Tyr
352   1               5                  10                  15
355  Val Leu Ser Gln Val Thr Leu Lys Glu Ser Gly Pro Gly Ile Leu Gln
356                   20                  25                  30
359  Pro Ser Gln Thr Leu Ser Leu Thr Cys Ser Phe Ser Gly Phe Ser Leu
360                   35                  40                  45
363  Arg Thr Tyr Gly Ile Gly Val Gly Trp Ile Arg Gln Pro Ser Gly Arg
364                   50                  55                  60
367  Gly Leu Glu Trp Leu Ala His Ile Trp Trp Asn Asp Asn Lys Tyr Tyr
368  65                   70                  75                  80
371  Asn Thr Val Leu Lys Ser Arg Leu Thr Ile Ser Lys Asp Thr Ser Asn
372                   85                  90                  95
```

FYI.

Please Note:
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the
Sequence Listing to ensure that a corresponding explanation is presented in the <220> to
<223> fields of each sequence which presents at least one n or Xaa.

VERIFICATION SUMMARY   DATE 07/05/2001
PATENT APPLICATION: **US/09/881,823**   TIME 11:17:41

Input Set : **A:\PTO.txt**
Output Set: **N:\CRF3\07052001\I881823.raw**

L:14 M:270 C: Current Application Number differs, Replaced Current Application No
L.14 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L.637 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13
L 641 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13
L:839 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17